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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,188	12/26/2000	Risvan Coskun	71493-742/jpw	2927

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EXAMINER
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ART UNIT	PAPER NUMBER
2681	5

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/746,188	Applicant(s) Coskun et al.	
	Examiner Temica M. Davis	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 26, 2000* .

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-29* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

U. S. Patent and Trademark Office

PTO-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. **5**

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-4, 7, 9-11, 14-19 and 21-29 are rejected under 35 U.S.C. 102(b) as being

anticipated by Comroe et al (Comroe), U.S. Patent No. 5,355,367.

Regarding claim 1, Comroe discloses a computing apparatus arranged to operate within a

wireless network including at least one radio sector in which mobile terminals can communicate,

the computing apparatus comprising: network resource allocation logic that operates to request

allocation of at least one network resource associated with the radio sector for at least one mobile

terminal; to determine if the allocation of the at least one network resource associated with the

radio sector is successful; and, if the allocation fails, to request the at least one mobile terminal

be placed within a dormant mode (col. 6, lines 25-51).

Regarding claim 2, Comroe discloses a computing apparatus according to claim 1,

wherein the network resource allocation logic further operates to continue to request allocation of

the at least one network resource associated with the radio sector for the at least one mobile

terminal after the allocation has previously failed; to determine if the allocation of the at least one

network resource associated with the radio sector is successful after the allocation has previously

failed; and, if the allocation is successful, to request the at least one mobile terminal be placed

within a connected mode (col. 6, lines 25-51 and col. 7, lines 12-49).

Regarding claim 3, Comroe discloses a computing apparatus according to claim 2,

wherein, if a plurality of mobile terminals have been placed within the dormant mode, the

network resource allocation logic further operates to select a predetermined queue order for

requesting the dormant mobile terminals to be placed within the connected mode (col. 6,

lines 41-43).

Regarding claim 4, Comroe discloses a computing apparatus according to claim 1 further

comprising a hard handoff determination logic that operates to determine if a hard handoff from a

first radio sector to a second radio sector is necessary for the mobile terminal and, if the hard

handoff is necessary, to trigger the operation of the network resource allocation logic for the

mobile terminal within the second radio sector (col. 7, lines 16-48; figure 4).

Regarding claim 7, Comroe discloses a computing apparatus according to claim 4,

wherein the network resource allocation logic further operates to request allocation of the at least

one network resource associated with the second radio sector for the mobile terminal if the

allocation has previously failed; to determine if the allocation of the at least one network resource

associated with the second radio sector is successful after a previous failure; and, if the

allocation is successful, to request the mobile terminal be placed within a connected mode (col.

6, lines 25-51 and col. 7, lines 12-49).

Regarding claim 9, Comroe discloses a computing apparatus according to claim 1,

wherein the at least one network resource associated with the radio sector inherently comprises a

Data Traffic Channel (DTC) between the mobile terminal and a Radio Access Port (RAP)

(figures 4 and 5).

Regarding claim 10, Comroe discloses a computing apparatus according to claim 1,

wherein the at least one network resource associated with the radio sector comprises inherently a

Dedicated Signalling Channel (DSC) between the mobile terminal and a Radio Access Port

(RAP) (figure 4).

Regarding claim 11, Comroe discloses a computing apparatus according to claim 1,

wherein the at least one network resource associated with the radio sector inherently comprises a

Segmentation and Distribution Unit (SDU) with in a Radio Access Port (RAP) (figure 4).

Regarding claim 14, Comroe discloses a computing apparatus according to claim 1,

wherein the network resource allocation logic determining if he allocation of he at least one

network associated with the radio sector is successful comprises monitoring for an allocation

failure message, the reception of the allocation failure message indicating that the allocation of at

least one network resource associated with the radio sector failed (col. 6, lines 25-43).

Regarding claim 15, Comroe discloses a computing apparatus arranged to operate within

a wireless network including at least one Radio Access Port (RAP) that communicates with

mobile terminals within at least one radio sector, the computing apparatus comprising: network

resource allocation logic that operates to allocate resources associated with the RAP to a mobile

terminal and to request that the mobile terminal be placed within a dormant mode if the attempt

to allocate resources associated with the RAP to the mobile terminal fails (col. 5, line 62-col. 6,

line 51; figure 4).

Regarding claim 16, Comroe discloses a wireless communication network comprising a

Radio Access Port (RAP) that operates to communicate with mobile terminals within at least one

radio sector and a computing apparatus according to claim 15 (col. 5, line 62-col. 6, line 8).

Regarding claim 17, Comroe discloses a computing apparatus arranged to control

allocation of network resources for a mobile terminal within a radio sector, the computing

apparatus comprising: means for attempting allocation of at least one network resource

associated with the radio sector for the mobile terminal; means for determining if the allocation

of the at least one network resource associated with the radio sector is successful; and means for

requesting the mobile terminal be placed within a dormant mode if the allocation of the at

least one network resource associated with the radio sector fails (col. 5, line 62-col. 6, line 52).

Regarding claim 18, Comroe discloses a computing apparatus according to claim 17,

wherein the means for attempting allocation of at least one network resource associated with the

radio sector for the mobile terminal and the means for determining if the allocation is successful

continue to operate after the allocation has previously failed; and wherein the computing

apparatus further comprises means for requesting the mobile terminal be placed within a

connected mode if the allocation is successful after a previous failure (col. 5, line 52-col. 6,

line 52).

Regarding claim 19, Comroe discloses a computing apparatus according to claim 17

further comprising means for determining if a hard handoff from a first radio sector to a second

radio sector is necessary for the mobile terminal; wherein the means for attempting allocation of

at least one network resource associated with the radio sector for the mobile terminal operate for

the mobile terminal within the second radio sector if the hard handoff is necessary (col. 5,

line 62-col. 6, line 55).

Regarding claim 21, Comroe discloses a method for allocating network resources

associated with a radio sector to a mobile terminal comprising: attempting to allocate at least one

network resource associated with the radio sector to the mobile terminal; and if the allocation of

the at least one network resource fails, requesting the mobile terminal be placed within a dormant

mode (col. 5, line 52-col. 6, line 52).

Regarding claim 22, Comroe discloses a method according to claim 21 further

comprising: attempting to allocate the at least one network resource associated with the radio

sector to the mobile terminal after the allocation has previously failed; and if the allocation of the

at least one network resource is successful after previously failing, requesting the mobile terminal

be placed within a connected mode (col. 6, lines 22-31 and col. 7, lines 12-49).

Regarding claim 23, Comroe discloses a method for performing a hard handoff of a

mobile terminal from a first radio sector to a second radio sector comprising: determining if

network resources of the second radio sector are sufficient for the mobile terminal; and if the

network resources of the second radio sector are not sufficient for the mobile terminal,

instructing the mobile terminal to be placed within a dormant mode until sufficient network

resources for the mobile terminal are available (col. 5, line 62-col. 6, line 52).

Regarding claim 24, Comroe discloses a wireless communication network comprising:

first and second Radio Access Ports (RAPs) that operate to communicate with mobile terminals

within at least first and second radio sectors respectively; and a computing apparatus that

operates: (a) to detect if a mobile terminal communicating with the first RAP requires a hard

handoff from the first radio sector to the second radio sector; (b) to attempt to allocate at least

one resource associated with the second RAP to the mobile terminal if a hard handoff is required;

and © to request the mobile terminal be placed into a dormant mode if the attempt to allocate the

at least one resource fails (col. 5, line 62-col. 6, line 52).

Regarding claim 25, Comroe discloses a network according to claim 24, wherein the

computing apparatus inherently comprises a Handoff Manager (HM) and a Radio Link Access

(RLA), the HM performing operation (a) and the RLA performing operations (b) and © with

instructions from the HM (figure 4).

Regarding claim 26, Comroe discloses a computing apparatus arranged to operate within

a wireless network including at least one radio sector in which mobile terminals can

communicate, the computing apparatus comprising: network resource allocation logic that

operates to determine the availability of at least one network resource associated with the radio

sector and, if the at least one network resource associated with the radio sector is determined to

have insufficient bandwidth for current traffic, to request at least one of the mobile terminals be

placed within a dormant mode (col. 5, line 62-col. 6, line 52).

Regarding claim 27, Comroe discloses a computing apparatus according to claim 26,

wherein the network resource allocation logic selects the at least one of the mobile terminals to

be placed within a dormant mode based upon a priority system (col. 6, lines 41-44).

Regarding claim 28, Comroe discloses a computing apparatus according to claim 26,

wherein the network resource allocation logic further operates to determine the availability of the

at least one network resource associated with the radio sector and, if the at least one network

resource associated with the radio sector is determined to have sufficient bandwidth for current

traffic and the mobile terminal placed within the dormant mode, to request the mobile terminal

be placed within a connected mode (col. 5, line 62-col. 6, line 52).

Regarding claim 29, Comroe discloses a computing apparatus according to claim 28,

wherein, if a plurality of mobile terminals have been placed within the dormant mode, the

network resource allocation logic further operates to select a predetermined queue order for

requesting the dormant mobile terminals to be placed within the connected mode (col. 6,

lines 41-44).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Comroe in view of

Baiyor et al (Baiyor), U.S. Patent No. 6,282,429.

Regarding claim 5, Comroe discloses a computing apparatus according to claim 4,

wherein the hard handoff determination logic operates to determine if a hard handoff is necessary

for the mobile terminal (col. 6, lines 52-61; figures 6A and 6B).

Comroe, however, fails to discloses wherein the determination of a need for handoff is

based on receiving and processing Pilot Strength Measurement (PSM) messages from the

mobile terminal.

In a similar field endeavor, Baiyor discloses this limitation (col. 9, lines 45-65). At the

time of invention, it would have been obvious to a person of ordinary skill in the art to modify

Comroe with Baiyor since such a technique is widely used in cellular systems.

5.   Claims 6, 8, 12, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Comroe.

Regarding claims 6, 8 and 20, Comroe discloses the apparatus of claims 4 and 19 as described above. Comroe, however, fails to disclose deallocating system resources.

The examiner contends, however, that at the time of invention, such a technique would have been obvious to a person of ordinary skill in the art for the purpose of reserving communication resources for users who may need to communicate.

Regarding claims 12 and 13, Comroe discloses a computing apparatus according to claims 1 2 as described above. Comroe, however, fails to disclose wherein the network resource allocation logic requesting the mobile terminal be placed within a dormant mode comprises requesting the mobile terminal to suspend communications on any of its previously established communication channels.

The examiner contends, however, that at the time of invention, such a technique would have been obvious to a person of ordinary skill in the art for the purpose of reserving communication resources for users who may need to communicate.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rezaiifar et al, U.S. Patent No. 6,526,030, discloses channel structure for communication systems.

Servi et al, U.S. Patent No. 6,314,293, discloses probablistic use of wireless reserve channels admission control.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday from 6:45 am to 3:15 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Sinh Tran, can be reached on (703) 305-4040.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 Customer Service at (703) 306-0377.

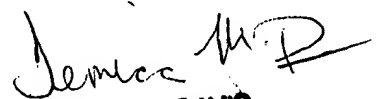**Any response to this communication should be mailed to:**
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Or faxed to:
(703) 872-9314 (for any communications intended for entry).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA., Sixth Floor (Receptionist).

Temica M. Davis
September 30, 2003

TEMICA M. DAVIS
PATENT EXAMINER